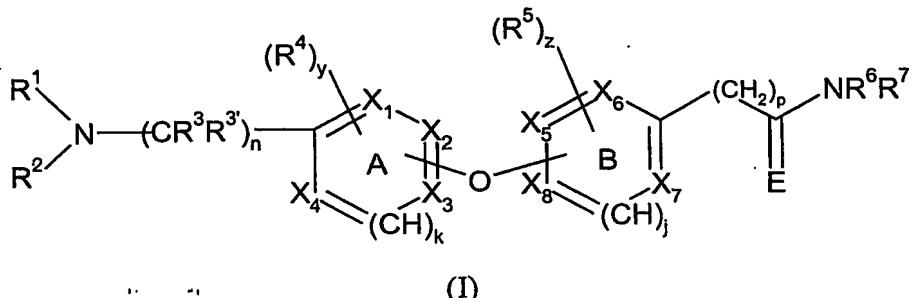


We claim:

1. A compound of the formula (I)



wherein

when K is 0, one of X₁, X₂, X₃, X₄, is a S or O atom and the others are independently selected from C, CH, or N; and wherein when j is 0, one of X₅, X₆, X₇, and X₈ is S, or O, and the others are independently selected from C, CH, or N; provided that both k and j are not simultaneously equal to zero or 1; and provided that each of rings A or B has no more than 2 nitrogen atoms; and provided that double bonds in the rings are present or absent as needed to maintain appropriate valency;

n is 0, 1, 2, or 3;

k is 0 or 1; j is 0 or 1;

p is 0, 1 or 2;

E is O or NH;

R¹ and R² are independently selected from hydrogen, C₁-C₈ alkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, phenyl, C₁-C₁₀ alkylaryl, C(O)C₁-C₈ alkyl, CO(O)C₁-C₈ alkyl, SO₂C₁-C₈ alkyl, SO₂C₁-C₁₀ alkylaryl, or SO₂C₁-C₈ alkylheterocyclic, C₄-C₁₀ alkylcycloalkane, C₁-C₈ alkoxyalkyl, (CH₂)_nC(O)OR⁸, (CH₂)_nC(O)R⁸, (CH₂)_mC(O)NR⁸R⁸, and (CH₂)_mNSO₂R⁸; wherein each of the alkyl, alkenyl, and aryl groups are optionally substituted with one to five groups independently selected from C₁-C₈ alkyl, C₂-C₈ alkenyl, phenyl, C₁-C₈ alkylaryl, C(O)C₁-C₈ alkyl, CO(O)C₁-C₈ alkyl, C₁-C₈ alkoxy, SO₂C₁-C₈ alkyl, SO₂C₁-C₈ alkylaryl, SO₂C₁-C₈ alkylheterocyclic, C₄-C₁₀ alkylcycloalkane, (CH₂)_nC(O)OR⁸, (CH₂)_nC(O)R⁸; and wherein R¹ and R² may optionally combine with each other to form a 4, 5, 6, or 7-member nitrogen-containing heterocycle which nitrogen-containing heterocycle may have substituents selected from the group consisting of oxo, amino, C₁-

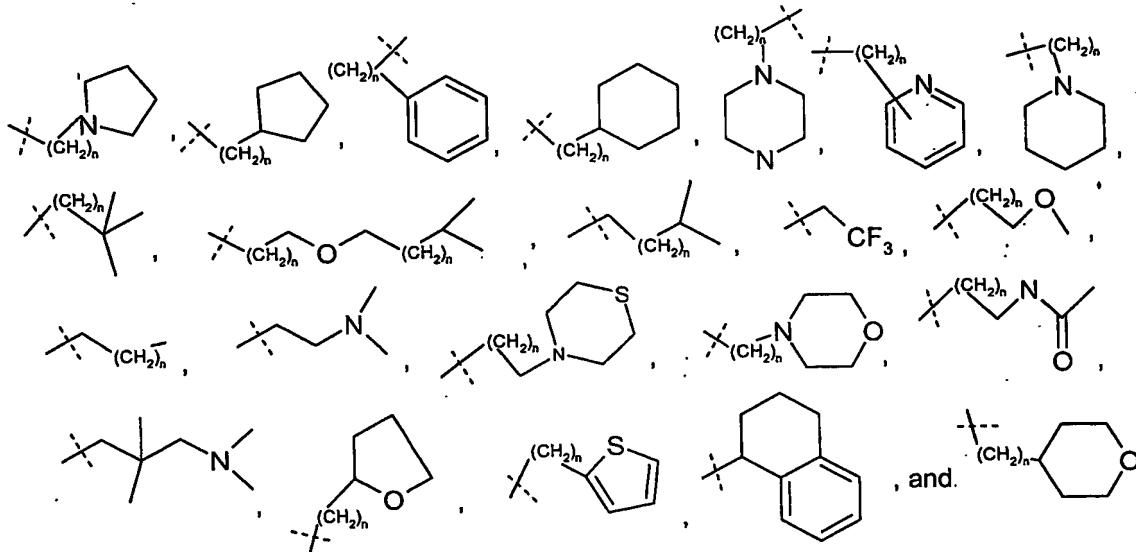
C_8 alkyl, C_2 - C_8 alkenyl, C_2 - C_8 alkynyl, phenyl, C_1 - C_8 alkylaryl, $C(O)C_1$ - C_8 alkyl, $CO(O)C_1$ - C_8 alkyl, halo, C_1 - C_8 haloalkyl; R^3 and R^3' are each independently selected from Hydrogen, C_1 - C_8 alkyl, C_2 - C_8 alkenyl, C_2 - C_8 alkynyl, C_1 - C_8 alkoxy, C_1 - C_8 thioalkyl, phenyl, aryl, C_1 - C_8 alkylaryl; R^4 and R^5 are each independently selected from Hydrogen, C_1 - C_8 alkyl, C_2 - C_8 alkenyl, C_2 - C_8 alkynyl, C_1 - C_8 alkoxy, halo, C_1 - C_8 haloalkyl, phenyl, aryl, C_1 - C_8 alkylaryl, $(CH_2)_mNSO_2C_1$ - C_8 alkyl, $(CH_2)_mNSO_2$ phenyl, $(CH_2)_mNSO_2$ aryl, $-C(O)C_1$ - C_8 alkyl, or $-C(O)OC_1$ - C_8 alkyl; wherein each R^4 or R^5 is attached to its respective ring only at carbon atoms, and wherein y is 0, 1, 2, or 3; and wherein z is 0, 1, 2, or 3; R^6 and R^7 are each independently selected from hydrogen, C_1 - C_8 alkyl, C_2 - C_8 alkenyl, C_2 - C_8 alkynyl, $C(O)C_1$ - C_8 alkyl, hydroxy, C_1 - C_8 alkoxy, SO_2C_1 - C_8 alkyl, SO_2C_1 - C_8 alkylaryl, or SO_2C_1 - C_8 alkylheterocyclic, aryl, C_1 - C_8 alkylaryl, C_3 - C_7 cycloalkane, C_1 - C_{10} alkylcycloalkane, $(CH_2)_nC(O)OR^8$, $(CH_2)_nC(O)R^8$, $(CH_2)_mC(O)NR^8R^8$, and $(CH_2)_mNSO_2R^8$; wherein each of the alkyl, alkenyl, and aryl groups are optionally substituted with one to five groups independently selected from C_1 - C_8 alkyl, C_2 - C_8 alkenyl, phenyl, and C_1 - C_8 alkylaryl; and wherein R^6 and R^7 may independently combine together, and with the nitrogen atom to which they are attached or with 0, 1, or 2 atoms adjacent to the nitrogen atom to which they are attached to form a 4, 5, 6, or 7-membered nitrogen containing heterocycle which nitrogen containing heterocycle may further have substituents selected from the group consisting of oxo, amino, C_1 - C_8 alkyl, C_2 - C_8 alkenyl, C_2 - C_8 alkynyl, phenyl, C_1 - C_8 alkylaryl, $C(O)C_1$ - C_8 alkyl, $CO(O)C_1$ - C_8 alkyl, hydroxy, C_1 - C_8 alkoxy, halo, and haloalkyl; R^8 is hydrogen, C_1 - C_8 alkyl, C_2 - C_8 alkenyl, C_5 - C_8 alkylaryl, $-C(O)C_1$ - C_8 alkyl, or $-C(O)OC_1$ - C_8 alkyl; m is 1, 2, or 3; or a pharmaceutically acceptable salt, solvate, enantiomer, racemate, diastereomers or mixtures thereof.

2. The compound according to claim 1 wherein the A-ring is selected from the group consisting of phenyl, pyridyl, thiophene, thiazole, furanyl, imidazole, and pyrazole.

3. A compound according to Claim 1 wherein the A ring is thiophene, thiaiazolyl or phenyl.

4. A compound according to Claim 1 wherein the B-ring is selected from the group consisting of phenyl, thiophene, thiazole, furan, and pyridine.
5. A compound according to Calim 1 wherein the B ring is thiophene
6. A compound according to Claim 1 wherein the B ring is thiazole
7. A compound according to claim 1 wherein the B ring is furanyl.
8. A compound according to Claim 1 wherein the A-ring is phenyl and the B ring is thiophene.
9. A compound according to Claim 1 wherein the A-ring is thiophene or thiazole and the B-ring is phenyl.
10. A compound according to Claim 1 wherein the A-ring is thiophene and the B-ring is thiazolyl.
11. A compound according to Claim 1 wherein the A-ring is thiazole and the B-ring is furanyl.
12. A compound according to Claim 1 wherein y is 0, or 1, and R⁴ is independently selected from the group consisting of hydrogen, fluoro, chloro, methyl, methoxy, ethoxy, ethyl, isopropyl, trifluoromethyl, phenyl, and benzyl.
13. A compound according to Claim 1 wherein z is 0, or 1, and R⁵ is independently selected from the group consisting of hydrogen, fluoro, chloro, methyl, methoxy, ethoxy, ethyl, isopropyl, trifluoromethyl, phenyl, and benzyl.

14. A compound according to Claim 1 wherein R¹ and R² are each independently selected from the group consisting of hydrogen, methyl, ethyl, propyl, isopropyl, phenyl,



15. The compound according to Claim 1 wherein R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, methyl, ethyl, propyl, isopropyl, and phenyl.

16. A compound according to Claim 1 wherein R⁶ and R⁷ are both hydrogen.

17. A compound according to Claim 1 wherein n is 1 or 2.

18. A compound according to Claim 1 wherein n is 1.

19. A compound according to Claim 1 wherein m is 2; n is 1; y is 0 or 1; z is 0 or 1; and p is 0 or 1.

20. A compound selected from the group consisting of:

5-{4-[(3-Methyl-butylamino)-methyl]-phenoxy}-thiophene-2-carboxamide,

5-{4-[(3,3-Dimethyl-butylamino)-methyl]-phenoxy}-thiophene-2-carboxamide,

5-{4-[(2-Cyclopentyl-ethylamino)-methyl]-phenoxy}-thiophene-2-carboxamide,

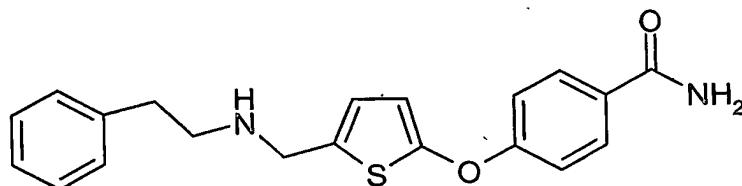
5-{4-[(3-Ethyl-pentylamino)-methyl]-phenoxy}-thiophene-2-carboxamide,

5-{4-[(Cyclohexylmethyl-amino)-methyl]-phenoxy}-thiophene-2-carboxamide,
5-(4-{[2-(4-Fluoro-phenyl)-ethylamino]-methyl}-phenoxy)-thiophene-2-carboxamide,
5-{2-Chloro-4-[(3-methyl-butylamino)-methyl]-phenoxy}-thiophene-2-carboxamide,
5-{2-Chloro-4-[(3,3-dimethyl-butylamino)-methyl]-phenoxy}-thiophene-2-carboxamide,
5-(2-Chloro-4-{[2-(4-fluoro-phenyl)-ethylamino]-methyl}-phenoxy)-thiophene-2-
carboxamide,
5-{2-Fluoro-4-[(3-methyl-butylamino)-methyl]-phenoxy}-thiophene-2-carboxamide,
5-{4-[(3,3-Dimethyl-butylamino)-methyl]-2-fluoro-phenoxy}-thiophene-2-carboxamide,
5-(2-Fluoro-4-{[2-(4-fluoro-phenyl)-ethylamino]-methyl}-phenoxy)-thiophene-2-
carboxamide,
5-{2-Methoxy-4-[(3-methyl-butylamino)-methyl]-phenoxy}-thiophene-2-carboxamide,
5-(4-{[2-(4-Fluoro-phenyl)-ethylamino]-methyl}-2-methoxy-phenoxy)-thiophene-2-
carboxamide,
4-{5-[(3-Methyl-butylamino)-methyl]-thiazol-2-yloxy}-benzamide,
3-Methoxy-4-{5-[(3-methyl-butylamino)-methyl]-thiazol-2-yloxy}-benzamide,
4-{5-[(3,3-Dimethyl-butylamino)-methyl]-thiazol-2-yloxy}-benzamide,
4-(5-{[2-(4-Fluoro-phenyl)-ethylamino]-methyl}-thiazol-2-yloxy)-benzamide,
4-(5-{[2-(4-Fluoro-phenyl)-ethylamino]-methyl}-thiazol-2-yloxy)-3-methoxy-
benzamide,
4-{5-[(Cyclohexylmethyl-amino)-methyl]-thiazol-2-yloxy}-benzamide,
2-(4-Pentylaminomethyl-phenoxy)-thiazole-5-carboxamide,
2-{4-[(3-Methyl-butylamino)-methyl]-phenoxy}-thiazole-5-carboxamide,
2-{4-[(3,3-Dimethyl-butylamino)-methyl]-phenoxy}-thiazole-5-carboxamide,
2-(4-{[2-(4-Fluoro-phenyl)-ethylamino]-methyl}-phenoxy)-thiazole-5-carboxamide,
2-{2-Chloro-4-[(3-methyl-butylamino)-methyl]-phenoxy}-thiazole-5-carboxamide,
2-{2-Fluoro-4-[(3-methyl-butylamino)-methyl]-phenoxy}-thiazole-5-carboxamide,
2-{2-Methyl-4-[(3-methyl-butylamino)-methyl]-phenoxy}-thiazole-5-carboxamide,
2-{2-Methoxy-4-[(3-methyl-butylamino)-methyl]-phenoxy}-thiazole-5-carboxamide,
4-[5-(2,6-Dimethyl-morpholin-4-ylmethyl)-thiazol-2-yloxy]-benzamide,
4-{5-[(3-Methoxy-propylamino)-methyl]-thiazol-2-yloxy}-benzamide,
4-{4-Chloro-5-[(3-methyl-butylamino)-methyl]-thiazol-2-yloxy}-benzamide,
4-(5-Butylaminomethyl-4-chloro-thiazol-2-yloxy)-benzamide,

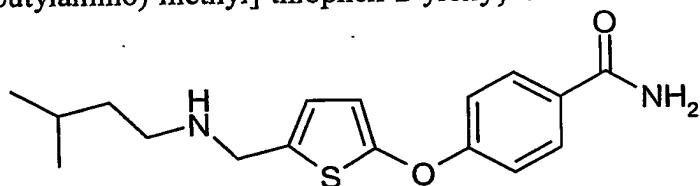
4-{4-Chloro-5-[(3,3-dimethyl-butylamino)-methyl]-thiazol-2-yloxy}-benzamide,
 4-[5-(Phenethylamino-methyl)-thiophen-2-yloxy]-benzamide,
 4-{5-[(3-Methyl-butylamino)-methyl]-thiophen-2-yloxy}-benzamide,
 4-(5-{{2-(3-Fluoro-phenyl)-ethylamino]-methyl}-thiophen-2-yloxy)-benzamide,
 4-{5-[(2-Cyclopentyl-ethylamino)-methyl]-thiophen-2-yloxy}-benzamide,
 4-{5-[(2-Thiophen-2-yl-ethylamino)-methyl]-thiophen-2-yloxy}-benzamide,
 4-{5-[(3,3-Dimethyl-butylamino)-methyl]-thiophen-2-yloxy}-benzamide,
 3-Methoxy-4-[5-(phenethylamino-methyl)-thiophen-2-yloxy]-benzamide hydrochloride,
 3-Methoxy-4-{5-[(3-methyl-butylamino)-methyl]-thiophen-2-yloxy}-benzamide
 hydrochloride,
 4-[5-(2-Phenethylamino-ethyl)-thiophen-2-yloxy]-benzamide hydrochloride,
 or a pharmaceutically acceptable salt, solvate, enantiomer, diastereomer or diastereomeric
 mixture thereof.

21. A compound selected from the group consisting of:

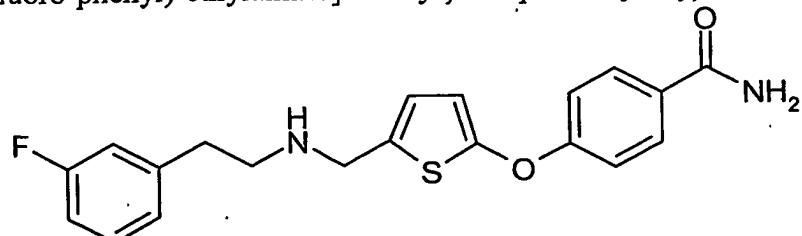
4-[5-(Phenethylamino-methyl)-thiophen-2-yloxy]-benzamide



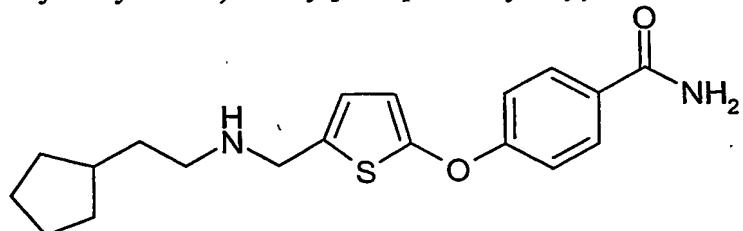
4-{5-[(3-Methyl-butylamino)-methyl]-thiophen-2-yloxy}-benzamide



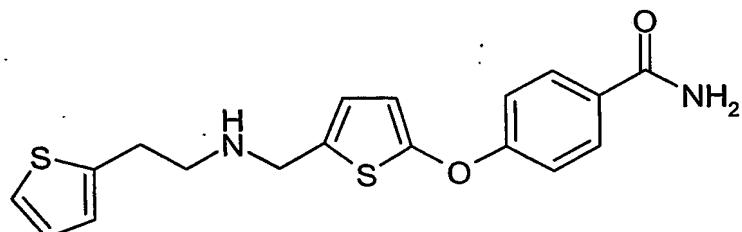
4-(5-{{2-(3-Fluoro-phenyl)-ethylamino]-methyl}-thiophen-2-yloxy)-benzamide



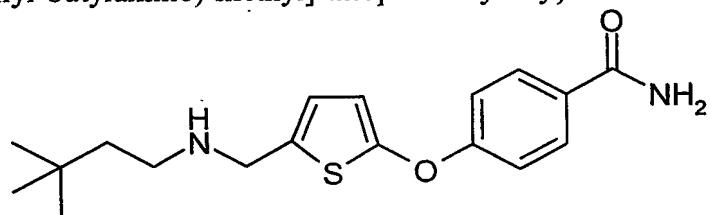
4-{5-[(2-Cyclopentyl-ethylamino)-methyl]-thiophen-2-yloxy}-benzamide



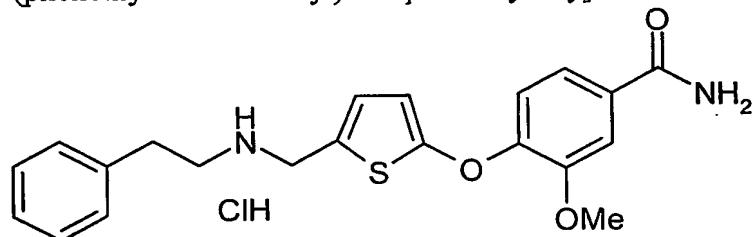
4-{5-[(2-Thiophen-2-yl-ethylamino)-methyl]-thiophen-2-yloxy}-benzamide



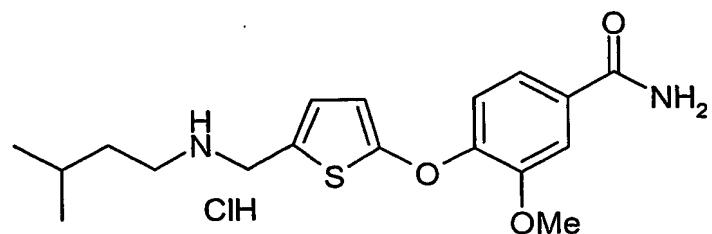
4-{5-[(3,3-Dimethyl-butylamino)-methyl]-thiophen-2-yloxy}-benzamide



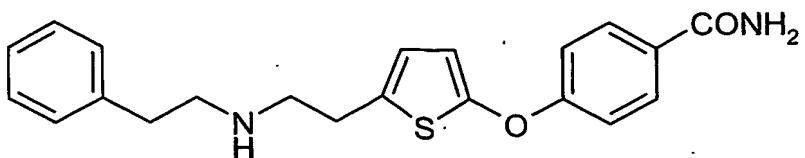
3-Methoxy-4-{5-(phenethylamino-methyl)-thiophen-2-yloxy}-benzamide hydrochloride



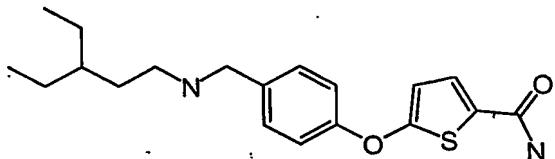
3-Methoxy-4-{5-[(3-methyl-butylamino)-methyl]-thiophen-2-yloxy}-benzamide hydrochloride



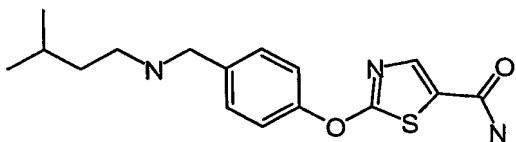
4-[5-(2-Phenethylamino-ethyl)-thiophen-2-yloxy]-benzamide hydrochloride



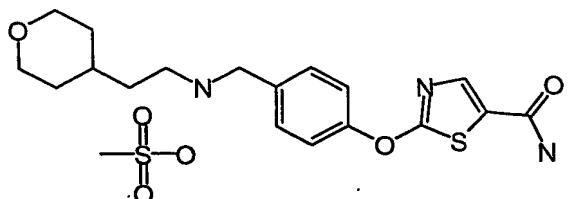
5-{4-[(3-Ethylpentylamino)methyl]phenoxy}thiophene-2-carboxamide



2-{4-[(3-Methylbutylamino)methyl]phenoxy}thiazole-5-carboxamide



2-(4-{[2-(Tetrahydropyran-4-yl)ethylamino] methyl}phenoxy)thiazole-5-carboxamide



methanesulfonate

and a pharmaceutically acceptable salt, solvate, enantiomer, diastereomer or diastereomeric mixture thereof.

22. A pharmaceutical composition comprising a therapeutically effective amount of a compound of formula I in association with a carrier, diluent and/or excipient.

23. A pharmaceutical composition comprising a compound according to Claim 20 or pharmaceutically acceptable salts, enantiomers, mixtures of diastereomers thereof.

24. A method for blocking a mu, kappa, delta or receptor combination (heterodimer) thereof in mammals comprising administering to a mammal requiring blocking of a mu, kappa, delta or receptor combination (heterodimer) thereof, a receptor blocking dose of a compound of the formula I, or a pharmaceutically acceptable salt, enantiomer, racemate, mixture of diastereomers, or solvate thereof.

25. A method of treating or preventing obesity and Related Diseases comprising administering a therapeutically effective amount of a compound of formula I to a patient in need thereof.

26. A method according to Claim 25 wherein the Related Diseases is selected from the group consisting of diabetes, diabetic complications, diabetic retinopathy, atherosclerosis, hyperlipidemia, hypertriglyceremia, hyperglycemia, and hyperlipoproteinemia, irritable bowel syndrome, depression, smoking and alcohol addiction, sexual dysfunction, substance abuse, drug overdose, addictive behavior disorders, compulsive behaviors, and stroke comprising administering a therapeutically effective amount of a compound of formula I.

27. A method of suppressing appetite comprising administering a therapeutically effective amount of a compound of formula I to a patient in need thereof.

28. Use of a compound of formula I in the manufacture of a medicament for the treatment and/or amelioration of the symptoms associated with obesity and Related Diseases comprising administering a therapeutically effective amount of a compound of formula I to a patient in need thereof.